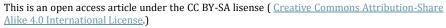
## **Original Article**

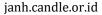
# **Analysis Of Factors That Affect the Implementation Of Triage On Satisfaction Of Patients Family**

Tariq Ullah<sup>1</sup>

<sup>1</sup>Dow University of Health Sciences (DUHS), Mission Rd, New Labour Colony Nanakwara, Karachi, Karachi City, Pakistan

ARTICLE INFO	ABSTRACT	
Article History: Submit : May 31. 2022 Revised : June 13, 2022 Accepted : June 14, 2022 Available : June 30, 2022  Keywords: Emergency Department, Triage, Satisfaction	Background: Error giving priority colors significantly affects patients' actions, speed, and family satisfaction. The problem of labeling colors that should be red to yellow labels will hinder patients from being treated. Errors in sorting emergency patients can be fatal to the speed and accuracy of medical and nursing interventions provided. This study aimed to determine the relationship between the accuracy of triage and the patient's family satisfaction in the Emergency Department.  Methods: The design used in this study is Cross-Sectional. The population was all patients' families in the Emergency Department, with a total of 1122. The sample size was 113 respondents using the accidental sampling technique. The independent variable of research is the Accuracy of Triage Implementation. The dependent variable is Satisfaction. Data were collected using a questionnaire, then analyzed using the rho spearmint test with a significance level of α ≤ 0.05.  Results: The results showed that nearly half of the respondents had an appropriate triage accuracy of 87 respondents (77%), and respondents had sufficient Satisfaction, as many as 50 respondents (44.2%). The statistical test in this study used the Spearmen's rho test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means there was a relationship between triage accuracy to the Family Satisfaction of Patients in the Emergency Department.  Conclusion: The accuracy of triage towards family satisfaction of patients is essential to be improved to reduce errors and improve the quality of services. nurses can identify satisfaction factors in the ED	
<b>♣</b> Corresponding Autor	: Tariq Ullah	
Affiliation	: Dow University of Health Sciences (DUHS), Mission Rd, New Labour Colony Nanakwara, Karachi, Karachi City, Pakistan	
₾ Email "" Cite this as	<ul> <li>tariqullahpk741@gmail.com</li> <li>Ullah, T. (2022). Analysis Of Factors That Affect the Implementation         Of Triage On Satisfaction Of Patients Family. Journal of Applied         Nursing and Health, 4(1), 130–135.         https://doi.org/10.55018/janh.v4i1.66     </li> </ul>	







### Introduction

Emergency Department (IGD) is an installation that provides services for the first time for patients who face the threat of mortality and abnormalities in integrated manner. Emergency treatment in the wrong triage can cause the impact of the implementation of the wrong therapy (Christ et al., 2010). Nurses in carrying out triage by providing color labels following the level of emergency patients. Error colors giving priority significantly affects patients' actions, speed, and family satisfaction. The problem of labeling colors that should be red to yellow labels will hinder the patients being treated. **Errors** in sorting emergency patients can be fatal to the speed and accuracy of medical and nursing interventions (Truog et al., 2020). Incorrect triage can harm patients and impact patient and family satisfaction because they do not get optimal service.

WHO data on patient visits in emergency departments continues to grow each year. The increase occurred around 30% in all ERs of world hospitals. Data on the admission of patients to the emergency room is 4,402,205 (13.3%) Based. The results of the study found that the family of patients who were dissatisfied with the accuracy of the implementation of triage of 5.8%, and those who were quite satisfied at 67.5%. Based on the results of a preliminary study, it was found that the Visit of Patients in the Emergency Room was an average of 110 patients per month. Preliminary data from the study taken from the field by researchers in the emergency room in 10 patient families found that six families of patients said that they were

dissatisfied with emergency services, the reason was that the service was long, not served by a doctor even though the patient needed fast treatment, three families of patients said they were pretty satisfied because they immediately got service. Two said they were satisfied because the communicative and caring nurse got fast service and was liked by patients (Tam et al., 2018).

Triage is a way to separate patients based on therapeutic needs and available resources. Therapy is based on ABC (Airway, with cervical spine control, Breathing and Circulation with bleeding control) (Truog et al., 2020). Triage applies to sorting patients both in the field and in hospitals. The public or patient sees quality emergency services as an emergency service that can meet the needs they feel and are carried out in a manner that is polite and courteous, timely, responsive, and able to cure complaints and prevent the development spread of disease (Abate Mekonnen, 2020; Hinson et al., 2019; Schildkraut & Nickerson, 2020). This view is critical because patient's patients will adhere satisfied treatment and want to come treatment again. Emergency Installation is expected to achieve patient and family satisfaction in getting fast, appropriate and correct services. The correct implementation of triage must support the accuracy of services in the Emergency Room. A good application of the concept of triage requires the readiness and role of emergency nurses in dealing with emergency conditions (Christian, 2019). One of the roles of emergency room nurses is to do triage. In triage activities, nurses are fully responsible for making decisions immediately (decision making), conducting risk assessments, social

This is an open access article under the CC BY-SA lisense ( <u>Creative Commons Attribution-Share Alike 4.0 International License.</u>) janh.candle.or.id



assessments, diagnoses, and determining priorities and planning actions based on patient urgency.

Implementing triage that does not follow the standard means that patient Satisfaction and family are reduced or even unsatisfied. The accuracy of patient management by nurses in the emergency room affects patient Satisfaction and anxiety. Overcrowded emergency room conditions increase discomfort and patient (Kuriyama et al., 2017). The number of patients who come to the emergency room makes nurses have to sort patients quickly and precisely according to priority, not the queue number. Nurses in performing patient care must act quickly and sort out patients according to priority, thus prioritizing patients who are prioritized and providing waiting times for patients with less urgent care needs.

The knowledge and accuracy influence patient's family satisfaction in the implementation of triage. Patient family satisfaction is one indicator of the success of health services in the ED (Moll, 2010). Emergency nurses in the implementation of triage are critical to increasing patient family satisfaction. **Improved** accuracy in triage implementation can be achieved with training and further education. The hospital's efforts to improve nurses' knowledge and skills in carrying out triage appropriately can be made with completing facilities, and training, improving standard operating procedures following the latest scientific knowledge. Based on the background on the previous page, the researcher intends to conduct a study entitled "Analysis of Implementation of Triage of Family **Patients** Satisfaction of the Emergency Room."

#### Method

The design used in this study is Cross-Sectional. The population was all patients' families in the Emergency Department, with a total of 1122. The sample size was 113 respondents using the accidental sampling technique. The independent variable of research is the Accuracy of Triage Implementation. The dependent variable is Satisfaction. Data were collected using questionnaire, then analyzed using the rho spearmint test with a significance level of  $\alpha \leq 0.05$ . This research has obtained a letter of appropriate research ethics.

#### **Results**

The research results obtained data distribution of research variables, namely:

Table 1. Frequency Distribution of Respondents based on the Accuracy of Triage

No	Accuracy Triage	Frequency	Percentage
1	Inaccurate	26	23,0
2	accurate	87	77,0
	Total	113	100

The results showed that almost half of the respondents had an exact triage accuracy of 87 respondents (77%).

Table 2. Distribution of Respondent Frequencies based on Satisfaction

No	Satisfaction	Frequency	Percentage
1	Not satisfied	21	18,6
2	Sufficiently Satisfied	50	44,2
3	Satisfied	42	37,2

This is an open access article under the CC BY-SA lisense ( <u>Creative Commons Attribution-Share Alike 4.0 International License.</u>) janh.candle.or.id



**Total** 113 100

The results showed that most respondents had sufficient Satisfaction, as many as 50 respondents (44.2%). The statistical test in this study used the Spearmen's rho test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there was a relationship between triage accuracy towards family satisfaction of patients in the emergency room

#### **Discussion**

The statistical test in this study used the Spearmen's rho test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there was a relationship between triage accuracy towards family satisfaction of patients in the emergency room. The results showed that almost half of the respondents had satisfied Satisfaction with the exact triage accuracy of 45 respondents (39.8%).

The length of work factor is the dominant factor in nurse decisionmaking. Triage prioritizes patient care based on symptoms (Jauch et al., 2013; Wang et al., 2020). Triage nurses use ABCD nursing such as airway, breathing, circulation, skin color, humidity, temperature, pulse, respiration, level of consciousness, and visual inspection for deep wounds, dirty deformities, and bruises to prioritize care for patients in the emergency room. Nurses prioritize patients with impaired airway, breathing, or circulation (Polly, 2002; Trimmel et al., 2018; Tuna & Latifi, 2013). These patients may have difficulty breathing or chest pain due to heart problems and receive the first treatment. Patients with life-threatening

problems are given immediate treatment even if they are expected to die or need a lot of medical resources. Satisfied patients are valuable assets because if they are satisfied, they will use the services of their choice, but if patients feel dissatisfied, they will tell others great about their as experiences (Hermans et al., 2020). To create patient Satisfaction, the hospital must create and manage a system to obtain more patients and the ability to retain patients. The meaning of patient satisfaction is the feeling of pleasure, individual Satisfaction due to the full expectations or desires in receiving health services.

Based on the results of the study, it was found that there is a relationship between the accuracy of triage on the Family Satisfaction of Patients in the Emergency. The results found that several things affect Satisfaction, such as service quality, emotional factors such the behavior communication of nurses, and accuracy in service in the emergency room (Parker et al., 2019; Roquette et al., 2020; Sterling et al., 2019; Sutarto & Joebagio, 2016; Tahayori et al., 2021). Suppose the nurse carries out the proper triage and the Satisfaction of the patient and family increases. To create patient Satisfaction, the hospital must create and manage a system to obtain more patients and the ability to retain patients.

#### Conclusion

The study's results found that nearly half of the respondents had an appropriate triage accuracy. The results of the study found that most respondents had sufficient Satisfaction, and there was a relationship between

This is an open access article under the CC BY-SA lisense ( <u>Creative Commons Attribution-Share Alike 4.0 International License.</u>)

janh.candle.or.id



triage accuracy and the Family Satisfaction of Patients.

#### References

- Abate, H., & Mekonnen, C. (2020). Knowledge, Practice, and Associated Factors of Nurses in Pre-Hospital Emergency Care at a Tertiary Care Teaching Hospital. *Open Access Emergency Medicine: OAEM*, 12, 459. https://doi.org/https://doi.org/10.1038/s41598-020-67193-1
- Christ, M., Grossmann, F., Winter, D., Bingisser, R., & Platz, E. (2010). Modern triage in the emergency department. *Deutsches Ärzteblatt International*, 107(50), 892.
- Christian, M. D. (2019). Triage. *Critical Care Clinics*, *35*(4), 575–589.
- Hermans, J. J. R., Groen, J., Zwets, E., Klerk, B.-D., Bianca, M., Van Werkhoven, J. M., Ong, D. S. Y., Hanselaar, W. E. J. J., Waals-Prinzen, L., & Brown, V. (2020). Chest CT for triage during COVID-19 on the emergency department: myth or truth? *Emergency Radiology*, 27(6), 641-651.
- Hinson, J. S., Martinez, D. A., Cabral, S., George, K., Whalen, M., Hansoti, B., & Levin, S. (2019). Triage performance in emergency medicine: a systematic review. *Annals of Emergency Medicine*, 74(1), 140–152.
- Jauch, E. C., Saver, J. L., Adams, H. P., Bruno, A., Connors, J. J. B., Demaerschalk, B. M., Khatri, P., McMullan, P. W., Qureshi, A. I., Rosenfield, K., Scott, P. A., Summers, D. R., Wang, D. Z., Wintermark, M., & Yonas, H.

- (2013). Guidelines for the early management of patients with acute ischemic stroke: A guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*, *44*(3), 870–947. https://doi.org/10.1161/STR.0b
- https://doi.org/10.1161/STR.0b 013e318284056a
- Kuriyama, A., Urushidani, S., & Nakayama, T. (2017). Five-level emergency triage systems: variation in assessment of validity. *Emergency Medicine Journal*, 34(11), 703–710.
- Moll, H. A. (2010). Challenges in the validation of triage systems at emergency departments. *Journal of Clinical Epidemiology*, 63(4), 384–388.
- Parker, C. A., Liu, N., Wu, S. X., Shen, Y., Lam, S. S. W., & Ong, M. E. H. (2019). Predicting hospital admission at the emergency department triage: a novel prediction model. *The American Journal of Emergency Medicine*, 37(8), 1498–1504.
- Polly, G. Z. (2002). The difference between teaching nursing students and registered nurses. *Journal of Emergency Nursing*, 28(6), 574–578. https://doi.org/https://doi.org/10.1067/men.2002.128591
- Roquette, B. P., Nagano, H., Marujo, E. C., & Maiorano, A. C. (2020). Prediction of admission in pediatric emergency department with deep neural networks and triage textual data. *Neural Networks*, *126*, 170–177.
- Schildkraut, J., & Nickerson, A. B. (2020). Ready to respond: effects of lockdown drills and training

This is an open access article under the CC BY-SA lisense ( <u>Creative Commons Attribution-Share Alike 4.0 International License.</u>) janh.candle.or.id



- on school emergency preparedness. *Victims & Offenders*, *15*(5), 619–638.
- Sterling, N. W., Patzer, R. E., Di, M., & Schrager, J. D. (2019). Prediction of emergency department patient disposition based on natural language processing of triage notes. *International Journal of Medical Informatics*, 129, 184–188.
- Sutarto, A., & Joebagio, H. (2016).
  Relationship between Motivation
  , Competence , Workload , and
  Nurse Performance at Dr .
  Soediran. Journal of Health Policy
  and Management, 1(2), 78–87.
- Tahayori, B., Chini-Foroush, N., & Akhlaghi, H. (2021). Advanced natural language processing technique to predict patient disposition based on emergency triage notes. *Emergency Medicine Australasia*, 33(3), 480–484.
- Tam, H. L., Chung, S. F., & Lou, C. K. (2018). A review of triage accuracy and future direction. *BMC Emergency Medicine*, 18(1), 1–7.
- Trimmel, H., Beywinkler, C., Hornung, S., Kreutziger, J., & Voelckel, W. G. (2018). Success rates of prehospital difficult airway management: a quality control study evaluating an in-hospital training program. *International Journal of Emergency Medicine*, 11(1), 1–6. https://doi.org/https://doi.org/10.1186/s12245-018-0178-7
- Truog, R. D., Mitchell, C., & Daley, G. Q. (2020). The toughest triage—allocating ventilators in a pandemic. *New England Journal of Medicine*, *382*(21), 1973–1975. Tuna, M., & Latifi, R. (2013).

- Gastrointestinal Tract Access For Enteral Nutrition In Critically Ill And Trauma Patients: Indications, Techniques, And Complications. Europian Journal Trauma Emergency Surgical, 39, 235–242.
- https://doi.org/10.1007/s00068 -013-0274-6
- Wang, X., Zhang, X., & He, J. (2020). Challenges to the system of reserve medical supplies for health public emergencies: Reflections on the outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) epidemic in China. **BioScience** Trends, *14*(1). https://doi.org/10.5582/BST.20 20.01043

This is an open access article under the CC BY-SA lisense (  $\underline{\text{Creative Commons Attribution-Share Alike 4.0 International License.}}$ )

janh.candle.or.id

